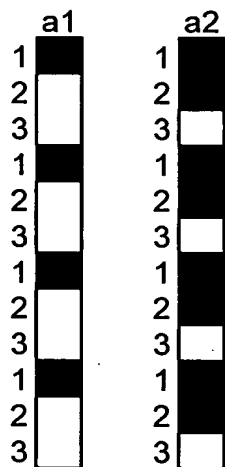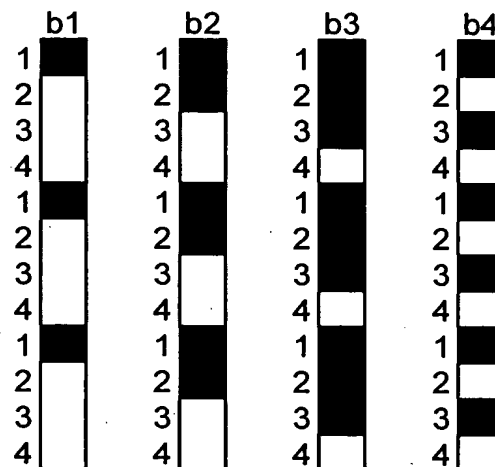# FIG. 1(A)

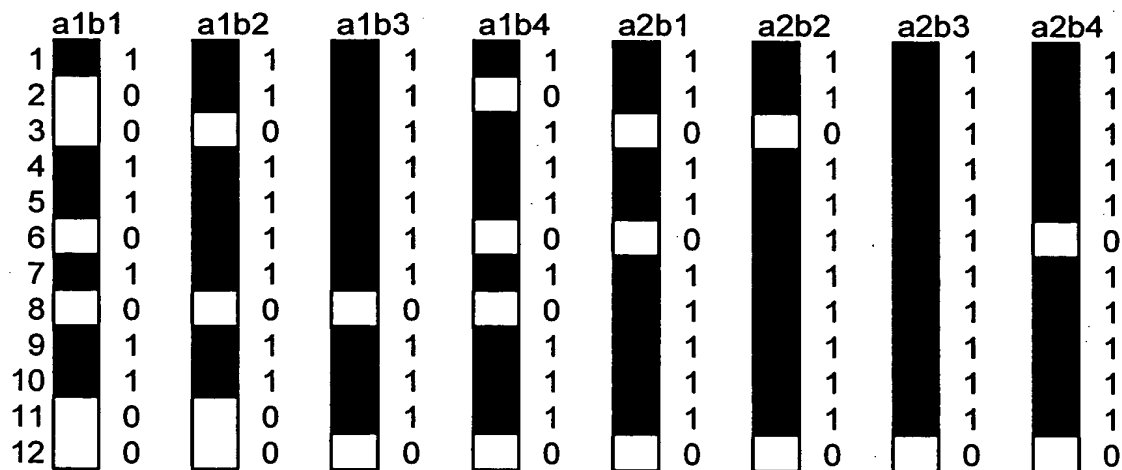Mark A with cycle period comprising 3 unit frames

FIG. 1(B)

Mark B with cycle period comprising 4 unit frames

FIG. 1(C)

Combination of Mark A and Mark B

Sensor output

FIG. 2(A) Mark A with cycle period comprising 3 unit frames
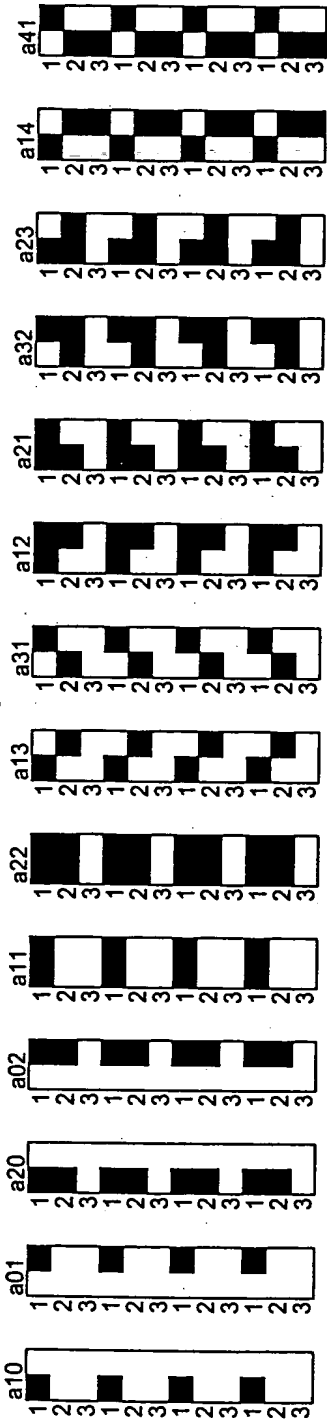
a10, a01, a20, a02, a11, a22, a13, a31, a12, a21, a32, a23, a14, a41

FIG. 2(B) Mark B with cycle period comprising 4 unit frames

b10, b01, b20, b02, b30, b03, b40, b04, b12, b15, b16, b17, b21, b28 etc.

FIG. 2(C) Combination of Mark A and Mark B

a10b10 output
a10b01
a20b20
a20b03
a13b12
a31b15
a32b16
a23b21
a14b04 etc.

FIG. 3(A)

Mark K with cycle period
comprising 3 unit frames
Black mark

FIG. 3(B)

Mark L with cycle period
comprising 4 unit frames
White mark

FIG. 3(C)

Combination (Black mark A is layed on White mark B)

Sensor output, in which

Frame ☐ expresses output of White mark

FIG. 4(A) Mark A with cycle period comprising 3 unit frames (a1)

Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C

FIG. 4(B) Mark B with cycle period comprising 4 unit frames (b1)

Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C

FIG. 4(C) Mark AB with cycle period comprising 12 unit frames (a1b1)

Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C

FIG. 4(D) Mark A with cycle period comprising 3 unit frames (a2)

Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C

FIG. 4(E) Mark B with cycle period comprising 4 unit frames (b2)

Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C

FIG. 4(F) Mark AB with cycle period comprising 12 unit frames (a2b2)

Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C Y M C

FIG. 5(A) Mark A with cycle period comprising 3 unit frames (a12)

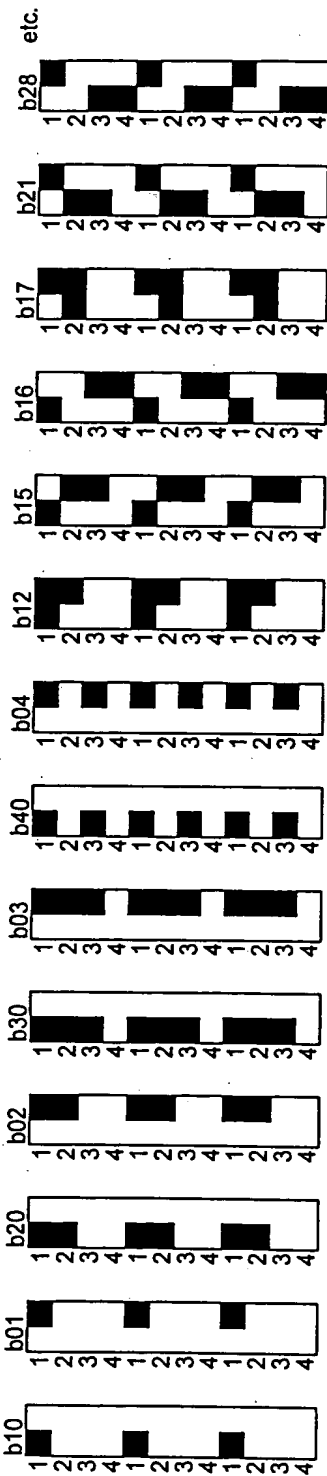FIG. 5(B) Mark B with cycle period comprising 4 unit frames (b12)

FIG. 5(C) Mark AB with cycle period comprising 12 unit frames (a12B12)

FIG. 5(D) Mark A with cycle period comprising 3 unit frames (a41)

FIG. 5(E) Mark B with cycle period comprising 4 unit frames (b21)

FIG. 5(F) Mark AB with cycle period comprising 12 unit frames (a41b21)

FIG. 6(A) Mark K with cycle period comprising 3 unit frames (k1)

YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC

FIG. 6(B) Mark L with cycle period comprising 4 unit frames (l1)

YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC

FIG. 6(C) Mark KL with cycle period comprising 12 unit frames (k1l1)

YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC

FIG. 6(D) Mark K with cycle period comprising 3 unit frames (k2)

YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC

FIG. 6(E) Mark L with cycle period comprising 4 unit frames (l2)

YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC

FIG. 6(F) Mark KL with cycle period comprising 12 unit frames (k2l2)

YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC YMC